

Work Order ID 123986

September-04-14 11:58:21 AM

Page 1

\*123986\*

Item ID: D3562-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Step Weldment

Start Date: 9/04/14 Start Qty: 4.00

\*4\*

Cust Item ID:

Required Date: 9/04/14 Req'd Qty: 4.00

\*4\*

Customer:

Reference:

Approvals:

Process Plan: MLS

Date: 14-09-02 Tooling:

Date:

Run Start \*NR1\*

QC:

Date: SPC (Y/N):

Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3562	F								

100

0.00

\*100\*

Large Fab

Large Fab

Memo

0.00

Large Fab

1-Cut D2622 extrusion as per Dwg D3562  
2-Deburr and bevel ends for welding

4X

DL14-10-14

110

\*QC6- Inspect dimensions to drawing

0.00

\*110\*

QC

Memo

0.00

Quality Control

3

OCT 14 2014

DAS  
24  
3-30

120

Chemical Conversion Coat per QSI005 4.1

0.00

\*120\*

HandFinish

Memo

0.00

Hand Finishing

3x f ll 10/10/14

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Item ID: D3562-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Step Weldment

Start Date: 9/04/14 Start Qty: 4.00

Required Date: 9/04/14 Req'd Qty: 4.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start \*NR1\*

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130 QC7-Inspect Chemical Conversion Coat 0.00

\*130\*

QC

Memo

0.00

Quality Control

③ 14-10-17 10

140 Small Fab 0.00

\*140\*

Small Fab

Small Fab

Memo

0.00

Small Fab

1- Transfer drill Rivet holes as per dwg D3562.

2-Touch-up rivet holes with alodine as per dwg d3562

3-Rivet legs using Scotch-Weld as per dwg D3562.

\*\*\*\*\*Ensure to wipe off any excess magnobond\*\*\*\*\*

A/R Scotch-Weld DP460

Batch: 129414

EXP DATE: Aug 2015

3 OCT 17 2014

DAS  
24  
9-89

# Work Order ID 123986

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Page 3

Item ID: D3562-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment  
 Start Date: 9/04/14 Start Qty: 4.00 **\*4\*** **3 SPLIT** Cust Item ID:  
 Required Date: 9/04/14 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
<b>*150*</b>									
QC	Memo	0.00							
Quality Control									
160		0.00							
<b>*160*</b>									
Large Fab	Large Fab								
Large Fab	Memo	0.00							
	1-Weld end caps as per Dwg d3562 & QSI 004. Inspect for foreign objects as per QSI 024.								
	A/RAluminum Rod <b>128956</b>								
	2-Grind end cap welds flush as per Dwg D3562								
170	QC10- Inspect visual per QSI004- ground welds	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

**③ 14-10-17** **DAS 9 9-89**

**3** **OCT 20 2014** **DAS 24 9-89**

**③** **DAS 43 9-89** **DAS 38 9-89** **OCT 21 2014**

# Work Order ID 123986

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Item ID: D3562-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Step Weldment

Start Date: 9/04/14 Start Qty: 4.00

**\*4\***

*3 SPLIT*

Cust Item ID:

Required Date: 9/04/14 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00			DAS <b>51</b> 9-89		DAS 9 9-89	<i>14/10/21</i>	
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

190 Chemical Conversion Coat per QSI005 4.1 0.00

**\*190\***

HandFinish

Memo 0.00

Hand Finishing

*3 φ 14-10-21*  
*[Signature]*

200 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00

**\*200\***

Powdercoat

*M 129 808*

Memo 0.00

Powder Coating

START TIME: *8:15*  
OVEN TEMPERATURE: *320°*  
FINISH TIME: *8:55*

*3 φ 14-10-22*

DAS  
34  
9-89

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**\*123986\***

Page 5

Item ID: D3562-041

Accept

**\*N9000040100\***

Setup Start **\*NS1\***

Revision ID:

Item Name: Step Weldment

Stop **\*NS2\***

Start Date: 9/04/14 Start Qty: 4.00

Required Date: 9/04/14 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

Wing Walk as per dwg QSI005 4.4 Batch 4130289

0.00

**\*210\***

HandFinish

Memo

Hand Finishing

x3 4 98 4/10/22

220

QC3- Inspect Part Finish

0.00

**\*220\***

QC

Memo

Quality Control

③ DAS 36 9-89 14-10-23

230

Identify as per dwg & Stock Location: G-A 0.00

**\*230\***

Packaging

Memo

Packaging

w/o 123982

3x 14/10/03 DAS 36 9-89

# Work Order ID 123986

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**\*123986\***

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Item ID: D3562-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment  
 Start Date: 9/04/14 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 9/04/14 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC21- Final Inspection - Work Order Release	0.00							
<b>*240*</b>									
QC	Memo	0.00							
Quality Control									

*14-11-06*

# Picklist Print

September-04-14 11:58:23 AM

Page 1

Work Order ID: 123986

\*123986\*

Parent Item: D3562-041

\*D3562-041\*

Parent Item Name: Step Weldment

Start Date: 9/04/14

Required Date: 9/04/14

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM  
 IPP rev B ECN 987 07.10.09 EC verified by: DD  
 IPP Rev:C ECN1048 07-12-18 DD verified by:ec  
 IPP Rev:D 08-07-28 add chemical conversion coat DD verf:EC IPP REV:E  
 13.06.03 PER DWG REV.F DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2622-120C

Manufactured No

100

Each

115.0000

1

4

\*D2622-120C\*

Step Extrusion

\*\*

Location

Loc Qty

Loc Code

HALL

111

109575

32

119621

79

WA003

4

101765

1

115141

3

D2734

Manufactured No

140

Each

47.0000

2

8

\*D2734\*

Step End Plate

\*\*

Location

Loc Qty

Loc Code

WA003

47

119286

35

119498

11

99709

1

D3560-041

Manufactured No

140

Each

5.0000

1

4

\*D3560-041\*

Arm Weldment

\*\*

Location

Loc Qty

Loc Code

WA003

5

108798

1

119472

4

DL 14-10-14

Cpl 14.10.16

Cpl 14.10.16

Cpl 14.10.16

3119472 → 4

3119472 → 3

# Picklist Print

September-04-14 11:58:24 AM

Page 2

Work Order ID: 123986

**\*123986\***

Parent Item: D3562-041

**\*D3562-041\***

Parent Item Name: Step Weldment

Start Date: 9/04/14

Required Date: 9/04/14

Start Qty: 4.00

Required Qty: 4.00

D3560-043

Manufactured No

140

Each

4.0000

1

4

**\*D3560-043\***

Arm Weldment

**\*\***

*CPC 14.10.14*

Location

Loc Qty

Loc Code

WA003

4

119367

4

MS20600-AD4W5

Purchased

No

160

Each

744.0000

32

128

**\*MS20600-AD4W5\***

Blind Rivet

**\*\***

~~3119367~~

*3119367 → 3*

*PPL 14.10.16*

Location

Loc Qty

Loc Code

ST310

372

m129820

372

WA003

372

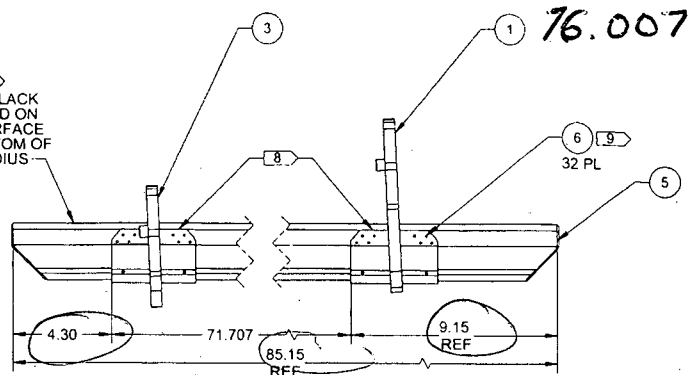
m129472

372

*128*

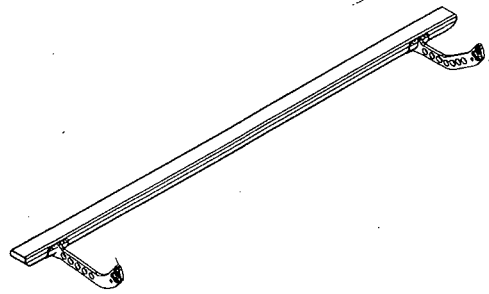


2  
APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM OF  
TOP RADIUS



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD



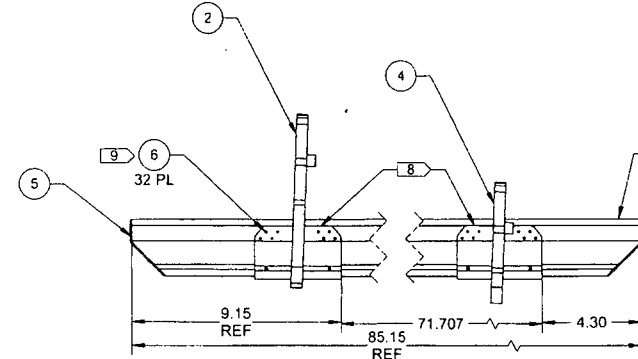
D3562-041 LH STEP ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH:
  - i) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.3
  - ii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 8.79 lbs
- 8) INSTALL ARM WELDMENTS WITH A LAYER OF SCOTCH-WELD DP460 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH SCOTCH-WELD DP460. CLEAN OFF EXCESS BEFORE POWDER COATING.
- 9) TRANSFER DRILL #30 DEBURR & TOUCH UP HOLES WITH CHEMICAL CONVERSION COAT BEFORE RIVETING

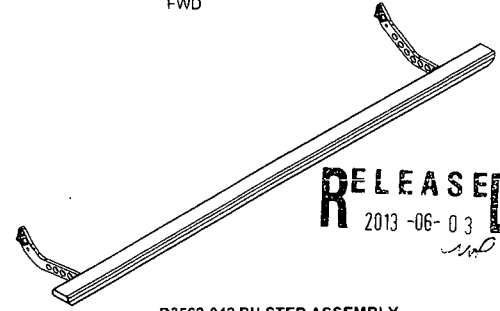
ITEM No.	QTY -041	QTY -042	P/N	DESCRIPTION
	X		D3562-041	LH STEP ASSEMBLY
		X	D3562-042	RH STEP ASSEMBLY
1	1		D3560-041	ARM WELDMENT
2		1	D3560-042	ARM WELDMENT
3	1		D3560-043	ARM WELDMENT
4		1	D3560-044	ARM WELDMENT
5	1	1	D3562-1	STEP ASSEMBLY
6	32	32	MS20600AD4W5	RIVET

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 123986 MJS  
14-09-04



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD



D3562-042 RH STEP ASSEMBLY

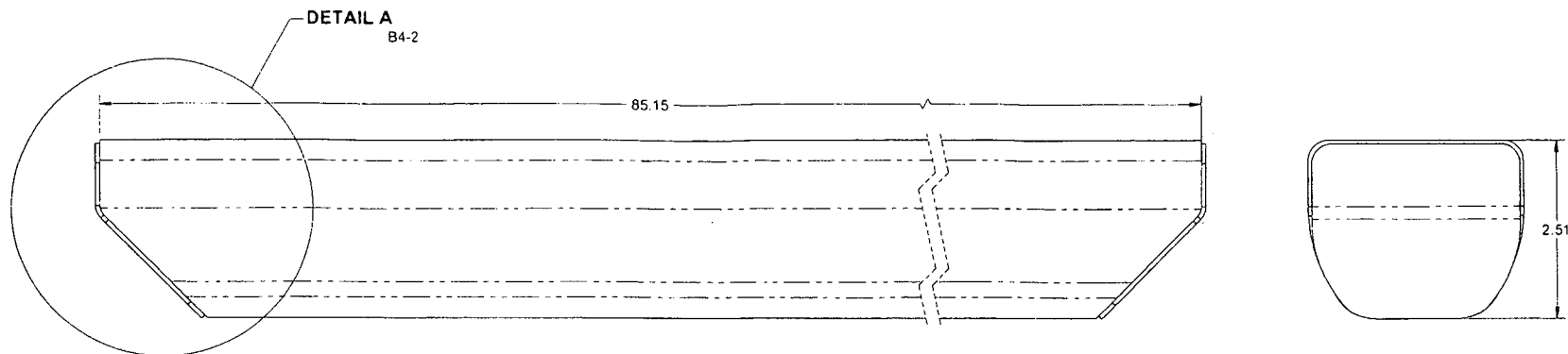
F	REVISED NOTE 8 TO REMOVE MAGNOBOND, REPLACE WITH SCOTCH-WELD DP460, REF. PAR12-224, ADDED NOTE 9 AND SHEET 2	DW	13.05.15
E	ADD QTY(2) TO D2734 END PLATE ON D3562-042	PH	08.01.11
D	REMOVE D2808 SPACER NOTE, REDRAW IN SOLIDWORKS	DC	07.11.16
C	NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS	CP	07.06.19
B	ARMS NOW RIVETED TO STEP	CP	07.01.15
A	NEW ISSUE	CP	06.09.26
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN	DW		
CHECKED	GP		
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.05.15		

DART AEROSPACE LTD  
HAWKESBURY, ONTARIO, CANADA

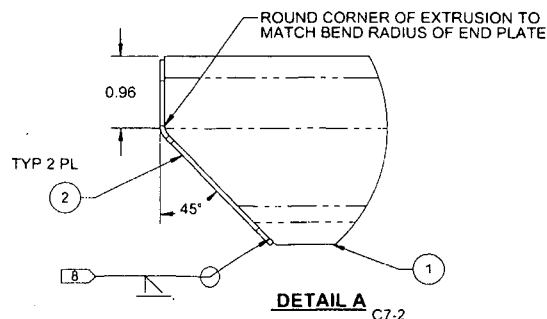
DRAWING NO. D3562  
SHEET 1 OF 2  
TITLE STEP ASSEMBLY  
SCALE NTS

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RELEASED  
2013-06-03



**D3562-1 STEP ASSEMBLY**



**DETAIL A**  
C7-2  
TYP BOTH ENDS  
SCALE 1X

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT STEP EXTRUSION  
PER DART QSI 005 4.1 BEFORE ASSEMBLY
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 6.68 lbs
- 8) WELDING: ALL WELDS SHALL BE 100% VISUALLY INSPECTED  
BY A QUALIFIED INSPECTOR PER DART QSI 004

ITEM No.	QTY	P/N	DESCRIPTION
	X	D3562-1	STEP ASSEMBLY
1	A/R	D2622-XXX	STEP EXTRUSION
2	2	D2734	END PLATE

DESIGN	DP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	DW		
CHECKED	CP	DRAWING NO.	REV. F
MFG. APPR.	MP	D3562	SHEET 2 OF 2
APPROVED	AP	TITLE	SCALE
DE APPR.	DP	STEP ASSEMBLY	NTS
DATE	13.05.15	COPYRIGHT © 2006 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	

**RELEASED**  
2013-06-03  
wff